

SOCIO-DEMOGRAPHIC DETERMINANTS OF HEALTH-SEEKING BEHAVIOUR AMONG HYPERTENSIVE ADULTS IN NIGER STATE, NIGERIA

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Abstract

Hypertension is one of the most common non-communicable diseases in Nigeria. However, a large number of people living with the condition do not seek medical care regularly or manage it properly. This study looked at how socio-demographic factors, specifically sex, age, educational level, marital status, religion, ethnic background, income, and occupation, influence health-seeking behaviour among hypertensive adults in Niger State. The Health Belief Model and the Political Economy of Health framework guided the study. A mixed-method cross-sectional design was used, combining a survey of 383 hypertensive adults drawn from three senatorial zones in Niger State with qualitative interviews involving selected patients and healthcare providers. Quantitative data were analysed using descriptive statistics and binary logistic regression, while qualitative data were analysed thematically. The results showed that sex, educational level, ethnic background, income, and occupation were significant predictors of health-seeking behaviour. Respondents with higher income had about four times the odds of being hypertensive. In contrast, those with higher educational attainment had about twice the odds, suggesting that lifestyle changes associated with better socioeconomic standing may be driving the risk. Male respondents showed higher odds of hypertension than females, and certain ethnic groups were less likely to be affected. People whose jobs made it difficult to attend regular clinic appointments were also significantly more likely to develop hypertension. Age, marital status, and religion did not emerge as significant predictors. The study concludes that a combination of personal circumstances and structural inequalities shapes health-seeking behaviour in Niger State. Interventions that combine health education, improved access to affordable care, and attention to the population's economic realities are needed to improve hypertension management in the state.

Keywords: Health-seeking behaviour, hypertension, socio-demographic determinants, Niger State, Health Belief Model, Political Economy of Health

Introduction

Hypertension is one of the leading non-communicable diseases worldwide and a major cause of death and disability. The World Health Organisation (2021) estimates that about 1.28 billion adults aged 30 to 79 years currently live with hypertension, yet only about one in five of them have the condition adequately under control. For many years, most research on hypertension focused on high-income countries. Today, however, the disease burden has

shifted largely to low- and middle-income countries, especially in sub-Saharan Africa, where changing lifestyles and rapid population growth have led to a considerable rise in prevalence (Adeke et al., 2024).

Nigeria, the most populous country in Africa, is not exempt from this trend. Studies have estimated hypertension prevalence among Nigerian adults to be between 25% and 40%, yet a large proportion of those living with the condition are either unaware, untreated, or not properly managed (Adeloye et al., 2015; Akinlua et al., 2015). Health-seeking behaviour refers to the steps a person takes in response to illness or perceived health risk, including going to the hospital, taking prescribed drugs, and following medical advice (Kleinman, 1980). In the management of hypertension, such behaviour is central to preventing complications. However, what drives or discourages people from seeking care is shaped by several factors, including where they live, their education level, income, occupation, and cultural or religious beliefs.

Although many studies on hypertension have been conducted in Nigeria, most were carried out in states such as Lagos, Kano, and Enugu. The North-Central zone, and Niger State in particular, has received very little attention in the research literature. This is a concern because Niger State is the largest state in Nigeria by land area, has a diverse population drawn from many ethnic groups, and is known for high poverty levels and limited access to healthcare services, especially in rural areas (Ibrahim et al., 2024). As a researcher based in the North-Central region, the researcher directly observed that many community members with hypertension delay seeking medical help, often returning to the hospital only when the condition had deteriorated. These observations, alongside the absence of studies addressing this gap, formed the basis for this research.

This study, therefore, set out to systematically examine how socio-demographic factors such as sex, age, educational level, marital status, religion, ethnicity, income, and occupation determine health-seeking behaviour among hypertensive adults in Niger State. Unlike most previous studies that focused on one or two of these factors at a time, this study examined all of them together, using both quantitative and qualitative methods, and interpreted the findings through the Health Belief Model and the Political Economy of Health framework. The results are intended to contribute to the existing body of knowledge and inform the development of more effective, context-specific interventions for managing hypertension in Niger State.

Statement of the Problem

Hypertension has become a serious public health concern in Nigeria. Studies show that many Nigerians living with the condition do not know they have it. Among those who are aware, a significant number do not seek treatment regularly or follow their prescribed treatment plans (Bamgboye et al., 2024). When hypertension is not properly managed, the risk of stroke, heart failure, kidney disease, and death increases considerably.

The situation is worsened by differences in health-seeking behaviour across various population groups. Research has shown that factors such as sex, age, educational level, income, and type of work all influence whether a person with hypertension seeks care or not (Jalo et al., 2025). In Niger State, many people with hypertension reportedly turn to traditional medicine, religious healing, or self-medication rather than visiting a clinic or hospital (Ibrahim et al., 2024). Despite this, very few studies have examined how these socio-demographic factors interact to shape health-seeking behaviour, specifically in Niger State. Most available studies in Nigeria focus on individual variables or on better-resourced states.

This study was therefore carried out to fill that gap. It examined how sex, age, educational level, marital status, religion, ethnicity, income, and occupation influence the health-seeking behaviour of hypertensive adults in Niger State. The findings provide the evidence needed to develop practical, targeted health interventions to reduce complications from poorly managed hypertension in the state.

Literature review

Health-seeking behaviour refers to the actions individuals undertake to maintain health, prevent disease, and seek care once illness is perceived (Kleinman, 1980). It encompasses both formal healthcare utilisation (e.g., visits to clinics, hospitals, community health centres) and informal strategies (e.g., traditional healing, self-medication). According to White et al. (2024), health-seeking patterns are shaped by a combination of individual perceptions, socio-economic contexts, and health system attributes.

In chronic conditions like hypertension, positive health-seeking behaviour involves not only initial diagnosis but also sustained engagement with healthcare services, adherence to antihypertensive medications, routine follow-up, and lifestyle modification (Mensah et al., 2023). However, studies in sub-Saharan Africa consistently highlight gaps in the care continuum, including late diagnosis, poor follow-up rates, and inadequate treatment adherence (Ataklte et al., 2023). These patterns are often rooted in socio-demographic disparities that influence how individuals perceive health risks and access resources that facilitate care.

Literature Review

Conceptualising Health-Seeking Behaviour in the Context of Hypertension

Health-seeking behaviour refers to the actions individuals take when they perceive a health problem or recognise the need for medical care (Kleinman, 1980). In the context of chronic non-communicable diseases such as hypertension, the concept extends beyond the initial act of seeking diagnosis to encompass sustained engagement with healthcare services, including regular blood pressure monitoring, adherence to anti-hypertensive medications, routine follow-up visits, and adoption of recommended lifestyle modifications (Mensah et al., 2023). While this definition appears straightforward, the determinants of health-seeking behaviour are deeply complex, shaped by interactions among individual perceptions, socio-demographic characteristics, economic realities, cultural frameworks, and structural conditions within healthcare systems. Understanding these determinants is particularly critical in low- and middle-income countries such as Nigeria, where the prevalence of hypertension continues to rise while healthcare utilisation remains persistently low (Bamgboye et al., 2024). The following review critically examines the evidence on how key socio-demographic factors, age, sex, education, income, occupation, marital status, religion, and ethnicity, shape health-seeking behaviour among hypertensive adults, with particular attention to the Nigerian context and the specific situation in Niger State.

Age and Health-Seeking Behaviour

Age occupies a central but paradoxical position in the literature on health-seeking behaviour among hypertensive adults. On one hand, older adults bear a disproportionately higher burden of hypertension due to progressive arterial stiffening, cumulative exposure to lifestyle risk factors, and age-related metabolic changes (Bosu, 2023; Franklin et al., 2017). This elevated

biological vulnerability logically predisposes older individuals to more frequent engagement with healthcare services. On the other hand, the same population often faces structural and physical constraints, including reduced mobility, dependence on caregivers, retirement-related income loss, and geographical remoteness from healthcare facilities, which can significantly impede sustained healthcare utilisation (Atchessi et al., 2018).

Evidence from Nigeria further complicates this relationship. Oche et al. (2024) found that while older hypertensive adults in Nigeria are more likely to have received a prior diagnosis, they tend to be less consistent in attending follow-up appointments, suggesting that diagnosis does not automatically translate into sustained health-seeking behaviour. This divergence between awareness and consistent utilisation points to a critical gap that age-focused interventions must address. Critically, much of the existing literature treats age as a linear predictor, thereby obscuring the role of intersecting factors, such as income and gender, that mediate how age ultimately shapes care-seeking decisions. Future research must therefore move beyond treating age as an isolated variable and examine how it interacts with other socio-demographic characteristics to produce differentiated health-seeking outcomes.

Sex, Gender, and Health-Seeking Behaviour

The evidence on gender differences in health-seeking behaviour is among the most consistent in the literature, with women generally demonstrating higher rates of healthcare utilisation than men across diverse settings (Wang et al., 2024). This pattern is partly explained by women's regular contact with health systems through reproductive and maternal health services, which normalises help-seeking behaviour and facilitates early detection of conditions like hypertension (Jalo et al., 2025). In contrast, men are more likely to delay care until symptoms become severe or incapacitating, a behaviour attributed to hegemonic masculinity norms that equate illness acknowledgement with weakness and discourage expressions of vulnerability (Skovdal et al., 2023).

In the Nigerian context, Ansa et al. (2025) found that female hypertensive adults were more likely to engage in routine blood pressure monitoring and maintain contact with healthcare providers, while their male counterparts were more likely to present with uncontrolled hypertension resulting from delayed care and inconsistent medication adherence. However, a critical reading of gender literature reveals important nuances. While women may seek care more frequently, they do not necessarily receive better hypertension outcomes, as financial dependence, limited decision-making autonomy, and caregiving burdens can compromise their capacity to adhere to treatment regimens (Jalo et al., 2025). This suggests that higher healthcare utilisation among women does not straightforwardly translate into superior health outcomes. This distinction calls for gender-sensitive analyses that go beyond frequency of visits to examine quality and continuity of care.

Educational Attainment and Health-Seeking Behaviour

Educational attainment is widely recognised as one of the most robust determinants of health-seeking behaviour, operating primarily through its effect on health literacy. Higher levels of education equip individuals with cognitive tools to recognise symptoms, comprehend medical instructions, and navigate often complex healthcare bureaucracies (Cutler & Lleras-Muney, 2024). In the context of hypertension, educational attainment has been positively associated with awareness of one's condition, willingness to seek formal medical care, and consistency of treatment adherence (Alonso & Chen, 2024).

Conversely, low educational attainment has been linked to widespread misconceptions about the nature of hypertension, including beliefs that the condition is caused by spiritual forces or dietary taboos rather than physiological processes, which in turn drive reliance on informal or traditional treatment pathways and discourage engagement with biomedical care (Ndukwe et al., 2023). In Niger State, where a significant proportion of the population has not attained formal education beyond the primary level, this dynamic is particularly consequential. However, literature is not without contradictions. Some studies have noted that even educated individuals can demonstrate poor medication adherence, particularly when structural barriers such as drug unavailability or cost remain unaddressed (Aregbeshola & Khan, 2018). This suggests that education alone is insufficient to guarantee appropriate health-seeking behaviour, and that structural enablers must accompany individual-level improvements in health literacy.

Socio-economic Status: Income and Occupation

Socio-economic status, as reflected through income and occupational category, exerts a powerful and well-documented influence on health-seeking behaviour. In healthcare systems that rely heavily on out-of-pocket expenditure, as is the case across most of Nigeria, individuals with stable income and formal employment are substantially better positioned to bear the direct and indirect costs of hypertension care, including consultation fees, medications, diagnostic tests, and transportation (Aregbeshola & Khan, 2018). Studies in West Africa confirm that higher income and secure employment are consistently associated with more regular healthcare utilisation and better adherence to antihypertensive medication (Solomon et al., 2023).

What literature tends to underemphasise, however, is the occupational dimension of this relationship. Occupation shapes health-seeking behaviour not only through income generation but also through time availability, workplace flexibility, and proximity to health services. Individuals engaged in informal, agricultural, or daily-wage labour categories, which represent a significant segment of the adult population in Niger State, often cannot afford to take time off work for clinic visits without immediate economic consequences. This creates a structural tension in which the very populations most vulnerable to inadequately controlled hypertension are simultaneously least able to access the care they need. This observation reinforces the Political Economy of Health argument that individual behaviour cannot be meaningfully separated from the structural conditions that constrain or enable it (Navarro, 2009).

Marital Status and Social Support

The relationship between marital status and health-seeking behaviour is mediated primarily by social support and shared economic resources. Married individuals, particularly those in functional and supportive partnerships, tend to benefit from spousal encouragement to seek care, reminders to take medications, and shared financial capacity to meet healthcare costs (Umberson & Karas Montez, 2024). Nigerian evidence supports this pattern, with married hypertensive adults more likely to attend regular clinic appointments compared to those who are single, divorced, or widowed (Okpechi et al., 2023).

However, a critical appraisal of this evidence reveals that the protective effect of marriage is neither universal nor unconditional. The quality of the marital relationship, gendered power dynamics within the household, and the couple's economic capacity all moderate the extent to which marriage translates into positive health-seeking outcomes. Widowed individuals, who

represent a meaningful proportion of older hypertensive adults in Nigeria, may face compounded disadvantages arising from loss of social support, reduced income, and psychological distress, yet this subgroup receives comparatively little attention in the hypertension literature. These gaps point to the need for more nuanced analyses that disaggregate marital status beyond simple binary or categorical distinctions.

Religion, Culture, and Health-Seeking Behaviour

Religion and cultural belief systems constitute underappreciated but highly consequential determinants of health-seeking behaviour in the Nigerian context. In many communities across Niger State and the broader North-Central region, hypertension and other chronic illnesses are interpreted through spiritual or cosmological frameworks that locate the cause of illness in supernatural forces, ancestral displeasure, or divine will (Kabiru et al., 2024). Such interpretations can delay or entirely displace recourse to biomedical care, as individuals prioritise prayer, faith healing, or consultation with traditional practitioners as first-line responses to illness.

Critically, however, the relationship between religion and health-seeking behaviour is not uniformly negative. Religious institutions have also demonstrated significant potential as platforms for health education and community mobilisation, reaching populations that formal health systems often fail to engage (Lindsey et al., 2025). The challenge lies in how health policy engages with religion as a barrier to overcome or as a resource to leverage. The literature suggests that interventions which work with religious leaders and frameworks, rather than against them, are more likely to succeed in promoting positive health-seeking behaviour in deeply religious communities such as those found in Niger State.

Ethnicity and Trust in Formal Healthcare

Ethnicity intersects health-seeking behaviour through a complex web of cultural practices, shared linguistic and historical experiences, and collective attitudes toward formal institutions. In Nigeria's profoundly multi-ethnic context, ethnic identity can shape trust in biomedical care, preferences for traditional healers, and perceptions of discrimination within health facilities (Chukwu et al., 2024). Some ethnic communities have historically maintained stronger ties to traditional medicine systems, which can coexist with, but also compete against, formal healthcare engagement. In Niger State, which is home to numerous ethnic groups, including the Nupe, Gbagyi, Hausa, and others, these dynamics create a differentiated landscape of health-seeking behaviour that uniform health interventions are ill-equipped to address.

Comparative evidence from across Africa reinforces the importance of socio-demographic factors in shaping hypertension care behaviour. In Ghana, employment stability and marital support have been linked to improved treatment adherence, while low educational attainment and rural residence have emerged as persistent barriers (Owino et al., 2024). Kenyan population-based research has similarly demonstrated that men and individuals from lower socio-economic strata are substantially less likely to engage with formal hypertension care services (Owino et al., 2024). In Nigeria, Ansa et al. (2025) identified education, income, and gender as significant predictors of healthcare utilisation among hypertensive adults, consistent with patterns observed elsewhere on the continent.

However, despite these advances, the evidence base for Niger State remains critically thin. The available literature suggests that hypertension awareness in the state is increasing but that

this awareness has not translated into commensurate improvements in treatment-seeking or follow-up adherence, particularly in rural and peri-urban communities (Ibrahim et al., 2024). This disjuncture between awareness and action, sometimes described in literature as the "knowing-doing gap", is particularly pronounced in contexts characterised by structural barriers, cultural resistance to biomedical care, and limited healthcare infrastructure. Niger State, with its combination of ethnic diversity, high poverty rates, vast rural hinterland, and healthcare inequities, represents precisely such a context, yet has received disproportionately little research attention.

A critical synthesis of the foregoing literature reveals several recurrent limitations that the present study seeks to address. First, much of the existing evidence examines socio-demographic determinants of health-seeking behaviour in isolation, treating each variable as an independent predictor without adequately accounting for the interaction effects that emerge when multiple factors operate simultaneously. A low-income, poorly educated, older man in rural Niger State faces compounding disadvantages that no single-variable analysis can adequately capture. Second, the literature is heavily skewed toward urban populations and better-resourced states, leaving the socio-demographic dynamics of health-seeking behaviour in North-Central Nigeria, particularly Niger State, largely unexplored. Third, the theoretical frameworks applied in existing studies tend to favour either individual-level models or structural perspectives, rarely integrating both within a single analytical approach.

The present study addresses these gaps through a theoretically grounded, multi-variable analysis that draws on both the Health Belief Model and the Political Economy of Health framework to examine how individual perceptions and structural inequalities jointly shape health-seeking behaviour among hypertensive adults in Niger State. In doing so, it moves beyond cataloguing the determinants already documented in the literature to provide context-specific evidence that can inform targeted, culturally sensitive, and structurally responsive interventions. The study's findings are therefore expected not merely to confirm existing patterns but to generate new knowledge about the specific socio-demographic configurations that determine health-seeking behaviour in an underserved and under-researched Nigerian state.

This study is guided by two complementary theoretical frameworks: the Health Belief Model (HBM) and the Political Economy of Health (PEH) framework. Together, these theories provide a multi-level lens for understanding health-seeking behaviour among hypertensive adults in Niger State, situating individual perceptions within the broader socio-economic and structural context that shapes healthcare access and utilisation.

Theoretical Framework

The Health Belief Model

The Health Belief Model (HBM) was developed in the 1950s by a group of social psychologists working within the United States Public Health Service, principally Godfrey Hochbaum, Irwin Rosenstock, Stephen Kegels, and Howard Leventhal (Rosenstock, 1974). The model emerged from efforts to understand why large segments of the population failed to participate in disease prevention and early detection programmes, even when such services were freely available. It was subsequently refined and extended by Becker (1974), who incorporated the concept of motivation, and later by Rosenstock, Strecher, and Becker (1988), who added self-efficacy as a sixth construct following its emergence in Bandura's social learning theory. HBM thus represents a collaborative and evolving intellectual project

rather than the work of any single theorist, and its development was grounded in the practical observation that individual psychological states, rather than objective medical facts alone, determine whether people take protective health actions.

Core Assumptions

HBM rests on several foundational assumptions about human behaviour and decision-making. At its core, the model assumes that cognitive and perceptual processes primarily drive health behaviour: individuals act based on how they personally perceive and evaluate health threats and the available responses to those threats, rather than on objective clinical risk alone (Rosenstock et al., 1988). The model identifies six principal constructs through which these perceptions operate. First, perceived susceptibility refers to an individual's subjective assessment of their likelihood of contracting a disease or experiencing a health problem. Second, perceived severity concerns an individual's belief about the seriousness of the condition and its potential medical and social consequences. Third, perceived benefits refer to the individual's belief that a particular health action will effectively reduce the threat. Fourth, perceived barriers encompass the individual's assessment of the obstacles, whether financial, physical, psychological, or cultural, that stand in the way of taking the recommended health action. Fifth, cues to action refer to the internal or external stimuli that trigger health behaviour, such as symptoms, advice from family members, or public health campaigns. Sixth, self-efficacy, added in later iterations of the model, captures the individual's confidence in their ability to successfully perform the recommended behaviour (Becker, 1974; Rosenstock et al., 1988). Together, these constructs suggest that a person is most likely to engage in health-seeking behaviour when they perceive themselves as susceptible to a serious condition, believe that action will be beneficial, face minimal barriers, receive appropriate cues, and feel capable of acting.

Criticisms of the Health Belief Model

Despite its widespread application and intuitive appeal, HBM has attracted substantial criticism that must be acknowledged in any serious theoretical discussion. The most fundamental critique concerns its individualistic orientation. By locating the determinants of health behaviour entirely within the individual's cognitive and perceptual world, the model has been accused of neglecting the structural, economic, and societal forces that constrain individual agency and shape the conditions under which health decisions are made (Mechanic, 1995). Critics from social science and public health traditions argue that attributing poor health-seeking behaviour primarily to individual misperceptions risks victim-blaming and diverts attention from the systemic reforms needed to address healthcare inequity (Farmer, 2004). Furthermore, the model assumes a rational decision-making process in which individuals weigh costs against benefits before acting. However, this assumption has been challenged by evidence that health behaviour is often driven by habit, emotion, social pressure, and circumstances rather than by deliberate calculation (Ajzen, 1991). The model has also been criticised for its limited predictive validity across different cultural contexts, particularly in sub-Saharan Africa, where health beliefs are deeply embedded in spiritual and communal frameworks that do not map neatly onto the model's psychological constructs (Peltzer & Pengpid, 2018). Finally, HBM has been noted for its cross-sectional orientation, offering limited guidance on how perceptions change over time and how interventions can sustainably shift health behaviour.

Relevance to the Present Study and the Niger State Context

Notwithstanding these limitations, the HBM retains considerable explanatory value for understanding health-seeking behaviour among hypertensive adults in Niger State. In a context where hypertension is widely misunderstood, with many community members perceiving it as a condition caused by spiritual attack, stress, or excessive thinking rather than a chronic physiological disease requiring sustained medical management, the model's emphasis on perceived susceptibility and severity is particularly illuminating (Ibrahim et al., 2024). Hypertensive adults in Niger State who do not perceive themselves as genuinely at risk of cardiovascular complications are unlikely to prioritise regular clinic attendance or medication adherence, regardless of the availability of services. Similarly, the construct of perceived barriers is directly applicable to the Niger State context, where financial cost, long distances to tertiary health facilities, long waiting times, and distrust of biomedical practitioners constitute significant deterrents to health-seeking (Aregbeshola & Khan, 2018). The concept of cues to action is equally relevant, as many individuals in the study area first engage with hypertension care only after a relative has suffered a stroke or cardiac event, suggesting that experiential cues rather than preventive logic tend to motivate care-seeking. The HBM therefore provides this study with a theoretical lens for interpreting how individual-level perceptions, shaped by socio-demographic factors such as age, sex, and educational attainment, translate or fail to translate into appropriate health-seeking behaviour in Niger State.

The Political Economy of Health Framework

The Political Economy of Health (PEH) framework emerged in the 1970s as a critical counter-narrative to the dominant biomedical model of disease, which attributed ill health primarily to biological and individual behavioural factors. The framework drew its intellectual foundations from Marxist political economy, dependency theory, and critical sociology, with major contributions from Vicente Navarro (1976, 2009), Howard Waitzkin (1978), and Lesley Doyal (1979), among others. Navarro, perhaps the most prominent exponent of the framework, argued forcefully that the distribution of disease and health outcomes across populations cannot be understood without reference to the political and economic structures of capitalism, class relations, imperialism, and the state that organise societies and determine the allocation of resources (Navarro, 2009). Waitzkin (1978) extended this analysis to the doctor-patient relationship and the role of medicine as a social institution that reproduces existing power relations. More recently, the framework has been applied by scholars such as Marmot (2005) and Wilkinson and Marmot (2003) in the Social Determinants of Health tradition, which, while less explicitly Marxist, similarly emphasises how social position, inequality, and structural conditions shape health outcomes across populations. In the African context, the PEH framework has been applied to explain why postcolonial structural legacies, economic underdevelopment, and health system underfunding continue to produce avoidable disease burdens among disadvantaged populations (Farmer, 2004).

Core Assumptions

The Political Economy of Health framework rests on a set of foundational assumptions that distinguish it sharply from individually oriented health behaviour models. The framework assumes, first, that health and illness are social phenomena produced by the organisation of society, not merely biological events experienced by isolated individuals (Navarro, 2009).

Second, it assumes that the distribution of health outcomes across a population reflects the distribution of power and resources within that society, so that those who are poor, marginalised, or politically disempowered will systematically experience worse health, not because of inferior individual choices or perceptions, but because they face structurally imposed constraints that limit their access to the conditions necessary for health (Marmot, 2005). Third, the framework assumes that healthcare systems are not neutral institutions but are shaped by political and economic interests that can perpetuate or deepen health inequalities, for example, through the prioritisation of curative over preventive services, or through the commodification of healthcare that excludes those unable to pay (Waitzkin, 1978). Fourth, the PEH framework assumes that meaningful improvements in population health require structural reforms to economic systems, the redistribution of resources, the expansion of social protection, and the democratisation of health governance rather than simply individual behaviour change (Doyal, 1979). These assumptions collectively position the PEH as a macro-level, structurally oriented framework that situates individual health behaviour within the broader political and economic conditions that make certain behaviours possible or impossible.

The PEH framework has not been without its critics. The most common criticism concerns its level of abstraction. By focusing predominantly on macro-structural forces such as capitalism, class, and the state, the framework has been accused of undertheorising individual agency and the role of personal beliefs, cultural practices, and community-level dynamics in shaping health behaviour (Scambler, 2012). Critics argue that not all health disparities can be explained by structural determinants alone, and that a framework which reduces individual behaviour to a simple reflection of structural position risks producing a deterministic account that leaves little room for human agency or community-driven change (Williams, 2003). Furthermore, the framework has been criticised for its limited operationalisability. At the same time, it excels at diagnosing the structural roots of health inequity. However, it offers comparatively little guidance on the specific mechanisms through which structural factors translate into individual health behaviours, making it difficult to apply directly in empirical research designs that require measurable variables (Scambler, 2012). There is also a debate about whether the framework is sufficiently attentive to non-class dimensions of inequality, including gender, ethnicity, and religion, which may generate health disadvantages that do not map neatly into economic class categories (Navarro, 2009).

Despite these limitations, the Political Economy of Health framework is indispensable for understanding why health-seeking behaviour among hypertensive adults in Niger State remains persistently low even as awareness of hypertension increases. The framework draws attention to the structural conditions that constrain health-seeking in the state conditions that individual-level models, such as HBM, are poorly equipped to explain. Niger State is characterised by high poverty rates, with a significant proportion of the population engaged in subsistence farming, petty trading, and informal labour that generate incomes insufficient to cover the out-of-pocket costs of hypertension care (Ibrahim et al., 2024). The state's healthcare infrastructure, while nominally present in the form of primary health centres and general hospitals, is unevenly distributed, with rural communities where most of the population resides often lacking functional facilities, trained personnel, or consistent drug supplies (Aregbeshola & Khan, 2018). The near absence of functional health insurance coverage in the state means that the financial burden of hypertension management falls almost entirely on individual patients and their families, creating a structural barrier that disproportionately affects low-income groups regardless of their health beliefs or motivations

(Ogoina et al., 2024). Moreover, the historical underinvestment in public healthcare in North-Central Nigeria, partly a product of political marginalisation and uneven federal resource allocation, reflects the kind of political economy dynamic that Navarro (2009) identified as a root cause of population health inequity. The PEH framework, therefore, provides this study with the analytical tools to situate observed differences in health-seeking behaviour not as products of individual ignorance or indifference but as outcomes of structural inequalities that systematically disadvantage certain socio-demographic groups within Niger State.

The Health Belief Model and the Political Economy of Health framework are not competing theories but complementary analytical lenses that together provide a more complete understanding of health-seeking behaviour than either could offer alone. While the HBM illuminates the perceptual and psychological mechanisms through which individuals decide whether and how to seek care, emphasising how socio-demographic factors such as age, education, and sex shape perceived susceptibility, barriers, and self-efficacy, the PEH framework situates those perceptions within the structural conditions that constrain or enable action. A hypertensive adult in rural Niger State may fully perceive the severity of their condition and be motivated to seek care, yet remain unable to do so because of poverty, distance, or the absence of affordable medications, circumstances that the HBM alone cannot explain but which the PEH framework directly addresses. Conversely, the PEH framework's macro-level focus benefits from HBM's attention to the individual cognitive processes that mediate the relationship between structural conditions and actual behaviour. Together, these frameworks enable the present study to examine how socio-demographic determinants of health-seeking behaviour operate simultaneously at the level of individual perception and structural constraint, generating a more contextually grounded and theoretically robust analysis of hypertension care behaviour in Niger State.

Methodology

This study used a mixed-method cross-sectional design. Quantitative data were collected through structured questionnaires, while qualitative data were gathered through in-depth interviews and key informant interviews. The cross-sectional approach was suitable because the study examined how socio-demographic factors relate to health-seeking behaviour at a specific point in time. The qualitative component helped explain and provide context for the patterns observed in the survey data.

The study was conducted in Niger State, in Nigeria's North-Central geopolitical zone. The state was chosen because of its ethnic and cultural diversity, its large rural and peri-urban population, and the limited research available on hypertension and health-seeking behaviour within it. The study population included adults aged 18 years and above who had already been diagnosed with hypertension by a qualified health worker and had lived in Niger State for at least six months before data collection. People who were seriously ill or unable to provide informed consent were excluded.

A multi-stage sampling method was used. First, Niger State was divided into its three senatorial zones — Niger South, Niger East, and Niger North. Two Local Government Areas were then selected from each zone: Bida and Lavun from Niger South; Minna and Paiko from Niger East; and Kontagora and Mariga from Niger North. One public hospital was chosen from each senatorial zone — the Federal Medical Centre in Bida, the IBB Specialist Hospital in Minna, and the Specialist Hospital in Kontagora — because these facilities handle the majority of hypertension cases in their respective zones. Respondents were then recruited

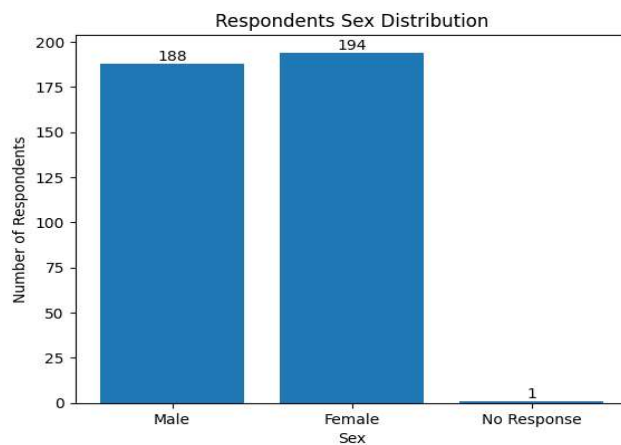
from the outpatient and hypertension clinic registers at each hospital. All eligible patients who attended appointments during the data collection period and agreed to participate were included until the required number was reached at each site.

A total of 400 questionnaires were distributed for the quantitative part of the study. Of these, 383 were returned and found suitable for analysis. The questionnaire covered socio-demographic characteristics, knowledge of hypertension, health-seeking patterns, and barriers to accessing care. For the qualitative component, 18 patients participated in in-depth interviews, and 12 healthcare providers were interviewed as key informants. These participants were selected because of their experience with hypertension care and their ability to provide useful information on health-seeking behaviour.

Quantitative data were analysed using SPSS. Descriptive statistics were used to summarise respondent characteristics; chi-square tests were used to assess associations between socio-demographic variables and health-seeking behaviour; and binary logistic regression was used to identify significant predictors. A significance level of $p < .05$ was used throughout. Qualitative data were transcribed verbatim and analysed using thematic analysis. The themes that emerged were used to deepen understanding of the quantitative results. Ethical approval was obtained from the relevant institutional committee prior to data collection, and written consent was obtained from all participants.

Findings

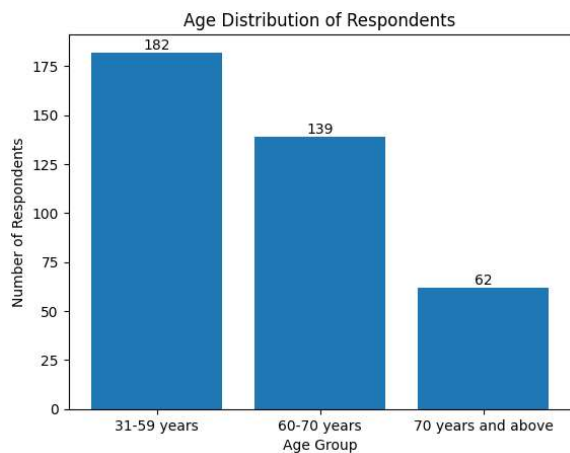
Fig 1: Socio-demographic characteristics of Respondents



Field Work 2025

The sex distribution of respondents showed a near-equal split between male and female participants, with males accounting for 49.1 per cent of the sample and females 50.7 per cent, while 0.3 per cent did not indicate their sex.

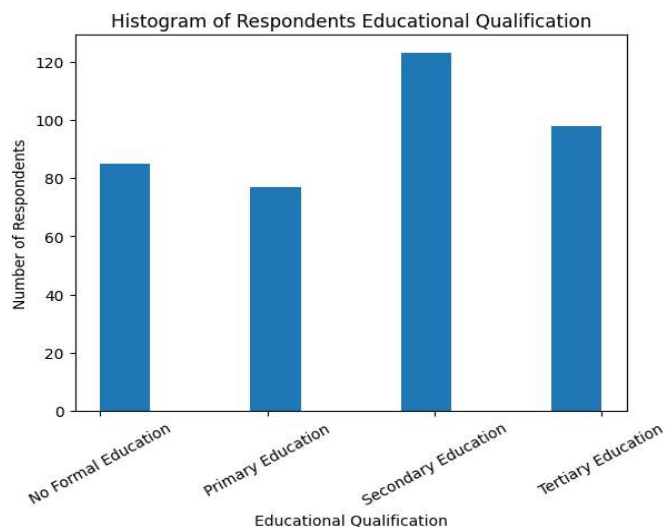
Fig 2: Age Distribution



Field Work 2025

The age distribution of respondents ranged from 31 years to 70 years and above. The largest proportion of respondents, 47.5 per cent, fell within the 31 to 59 age bracket, followed by 36.3 per cent aged 60 to 70 years, while 16.2 per cent were aged 70 years and above. The predominance of older adults in the sample is noteworthy, as it suggests that individuals in the more advanced age brackets are more likely to present at healthcare facilities for hypertension management than their younger counterparts. This pattern is consistent with the well-established epidemiological relationship between advancing age and increased hypertension risk. It may reflect the tendency among younger adults, particularly those between 20 and 30 years of age, to underestimate their susceptibility to the condition and therefore delay engagement with formal healthcare services.

Fig 3: Educational Qualification

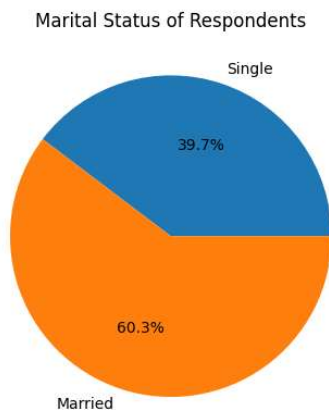


Field Work 2025

The educational profile of respondents revealed considerable variation in formal educational attainment across the sample. Those with secondary education constituted the largest group, accounting for 32.1 per cent of respondents, followed by those with no formal education at 22.2 per cent, those with tertiary education at 25.6 per cent, and those with only primary

education at 20.1 per cent. These figures indicate that while a majority of respondents had attained at least some level of formal schooling, a significant minority, more than one in five, had received no formal education whatsoever. This distribution is particularly relevant to the study's central concern, as educational attainment has been consistently identified in literature as a key determinant of health literacy, perceived susceptibility to hypertension, and willingness to engage with formal healthcare services. The relatively high proportion of respondents with no formal or only primary education in this sample suggests that limited health literacy may constitute a significant barrier to appropriate health-seeking behaviour among hypertensive adults in Niger State, a pattern that the subsequent analysis seeks to examine more closely.

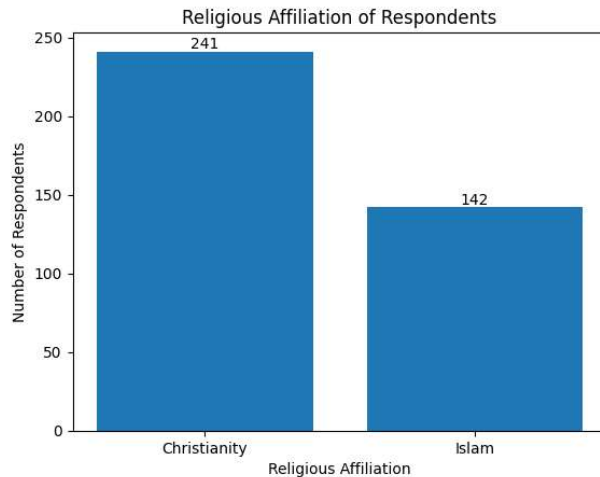
Fig 4: Marital Status of Respondents



Field Work 2025

The marital status distribution of respondents showed that the majority (60.3 per cent) were married, while 39.1 per cent were single. The predominance of married respondents in the sample is a finding of considerable analytical significance. As established in the literature, married individuals tend to benefit from spousal encouragement, shared financial resources, and stronger social support networks, all of which facilitate more consistent engagement with healthcare services and better adherence to treatment regimens. The relatively high proportion of married respondents attending hypertension clinics in this study may therefore reflect the enabling role that marital support plays in motivating health-seeking behaviour among hypertensive adults in Niger State. Conversely, the 39.1 per cent of respondents who were single, a category that encompasses those who have never married, are divorced, or are widowed, may represent a more vulnerable group whose health-seeking behaviour is potentially constrained by the absence of such social and economic support structures. This distribution invites further interrogation of how marital status interacts with other socio-demographic variables, particularly income and sex, in shaping the health-seeking decisions of hypertensive adults in the study area.

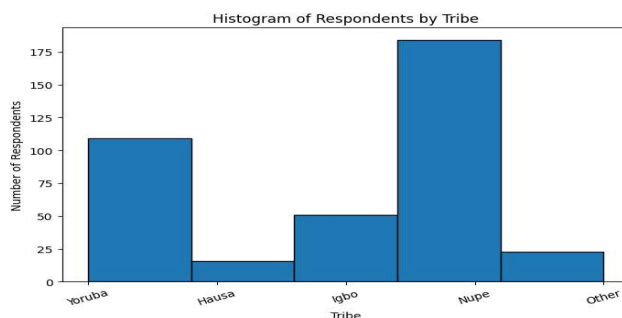
Fig 5: Religious Affiliation of Respondents



Field Work 2025

The religious affiliation of respondents was divided between two major faith traditions, with Christians constituting the majority at 62.9 per cent and Muslims accounting for 37.1 per cent of the sample. This distribution broadly reflects the religious demography of Niger State, where Christianity and Islam coexist as the two dominant religions across the state's diverse ethnic communities, with Christianity being more prevalent in the southern senatorial zone and Islam in the northern areas. The religious composition of the sample is analytically significant because, as the literature suggests, religious belief systems and faith-based interpretations of illness can profoundly influence how individuals perceive disease, make treatment decisions, and engage with formal healthcare services. In the context of hypertension management, both Christian and Muslim respondents in Niger State may be influenced by faith-based frameworks that prioritise prayer, spiritual healing, or traditional remedies as first-line responses to illness, potentially delaying recourse to biomedical care. At the same time, religious institutions in both traditions have demonstrated the capacity to serve as platforms for health education and community mobilisation. The near-equal but differentiated religious distribution in this sample therefore provides a useful basis for examining whether and how religious affiliation shapes health-seeking behaviour differently across the two faith communities represented in the study area.

Fig 6: Respondents Tribe



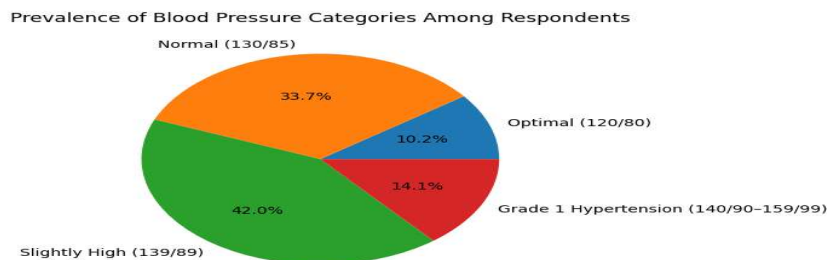
Field Work 2025

The ethnic distribution of respondents reflected the diverse composition of Niger State's population. The Nupe constituted the largest ethnic group in the sample at 48.0 per cent, followed by the Yoruba at 28.5 per cent, the Igbo at 13.3 per cent, other minority ethnic groups at 6.0 per cent, and the Hausa at 4.2 per cent. The predominance of Nupe respondents is consistent with the demographic character of Niger State, where the Nupe represent the largest indigenous ethnic group and are concentrated across the state's major urban and peri-urban centres, where the selected healthcare facilities are located. This ethnic distribution is analytically relevant because, as the literature indicates, ethnicity shapes health beliefs, trust in biomedical care, and preferences for traditional or faith-based treatment alternatives, which can significantly influence health-seeking behaviour. The presence of multiple ethnic groups in the sample, therefore, provides an opportunity to examine whether ethnicity constitutes a significant differentiator of health-seeking behaviour among hypertensive adults in the study area.

With respect to occupational status, private sector employees constituted the largest occupational category at 39.9 per cent, followed by traders and businesspersons at 32.6 per cent and civil servants at 27.4 per cent. The dominance of private-sector workers and traders in the sample is noteworthy, as individuals in these occupational categories typically operate in less structured work environments that may offer limited flexibility for routine clinic attendance. Unlike civil servants, who may benefit from employer-facilitated health insurance and scheduled work hours that accommodate medical appointments, traders and private-sector employees are more likely to face occupational constraints that directly compete with regular healthcare utilisation. This distribution, therefore, suggests that occupational structure may function as a significant structural barrier to consistent health-seeking behaviour among a substantial proportion of hypertensive adults in Niger State.

The income distribution of respondents revealed a pattern of pronounced economic vulnerability within the sample. Low-income earners constituted the overwhelming majority at 57.4 per cent, while average-income earners accounted for 28.2 per cent, and high-income earners represented only 14.4 per cent of respondents. The concentration of more than half of the sample in the low-income category is a significant finding for understanding health-seeking behaviour in the study area. In a healthcare environment characterised by heavy reliance on out-of-pocket costs and limited health insurance coverage, low income directly constrains individuals' ability to cover the costs of hypertension consultations, medications, and transportation to health facilities. This economic profile of respondents lends strong empirical support to the Political Economy of Health framework's argument that structural economic inequalities, rather than individual perceptions alone, fundamentally shape the health-seeking decisions of hypertensive adults in Niger State.

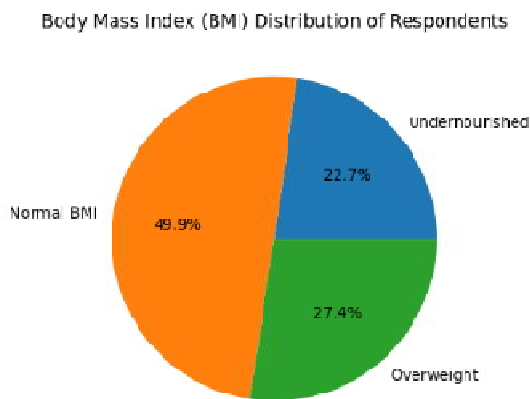
Fig 7: Prevalence of Hypertension



The study revealed that 10.2% of respondents had blood pressure at the optimal level of 120/80 mmHg, while 33.7% recorded a normal blood pressure reading of 130/85 mmHg. A notable proportion of respondents (42.0%) presented with slightly elevated blood pressure of 139/89 mmHg, and 14.1% had blood pressure between 140/90 mmHg and 159/99 mmHg, which is clinically classified as Grade 1 hypertension.

The findings further indicate a high prevalence of hypertension within the study area, as 56.1% of total respondents either presented with high blood pressure or had already progressed to Grade 1 hypertension. This is a significant public health concern, as more than half of the sampled population demonstrated blood pressure readings beyond the clinically acceptable threshold.

Fig 8: Respondents' Body Mass Index

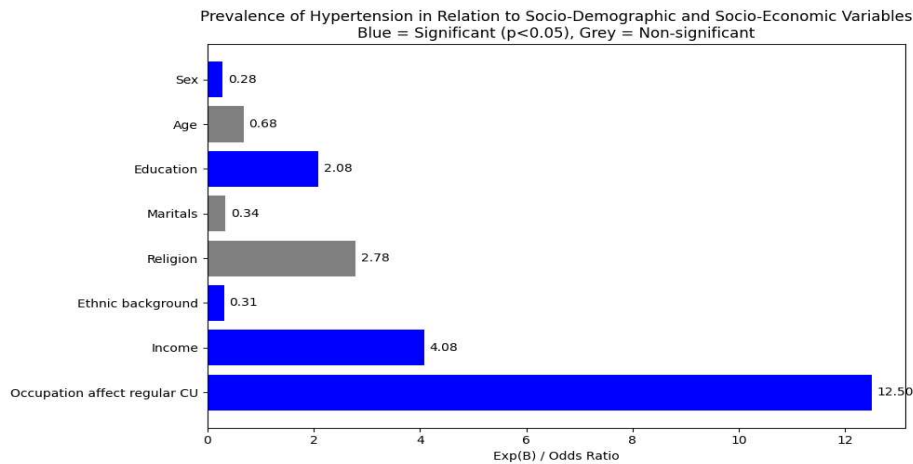


With respect to body mass index, the data show that 49.9% of respondents had a normal BMI, 27.4% were overweight, and 22.7% were undernourished. This distribution reflects considerable nutritional heterogeneity within the study population and reinforces the observed association between BMI status and blood pressure outcomes.

Taken together, these findings paint a concerning picture of cardiovascular health among adults in the study area. The convergence of elevated blood pressure and poor nutritional profiles suggests that hypertension in this population is not an isolated clinical condition but is likely compounded by broader lifestyle and dietary factors. According to a health practitioner who was interviewed;

The majority of the ailments we have in this hospital are high blood pressure-related. In many cases, we have had to admit patients on an emergency basis due to patients not coming in to check their health status (KII H3).

Regression Analysis



Discussion of findings

This section discusses the study's findings as they relate to each objective. The objectives examined how sex, age, educational attainment, marital status, religion, ethnicity, income, and occupation shape health-seeking behaviour among hypertensive adults in Niger State. The discussion draws on the Health Belief Model (HBM) and the Political Economy of Health (PEH) framework.

Sex as a Determinant of Health-seeking Behaviour

The study recorded nearly equal numbers of male and female respondents, with females making up 50.7% and males 49.1% of the clinic sample. Despite this near balance, the regression analysis showed that male respondents had significantly higher odds of being hypertensive than females. This is consistent with existing literature, which links men to higher exposure to risk factors such as alcohol use, cigarette smoking, and work-related stress, as well as a tendency to delay visiting the hospital until a condition worsens (World Health Organisation, 2013; Adeloje et al., 2015). The HBM helps to explain this: men generally perceive themselves as less susceptible to chronic illness and tend to place less importance on preventive care, which leads to late diagnosis and late treatment (Becker, 1974; Rosenstock et al., 1988).

The slightly higher number of women attending the clinic reflects a pattern widely reported in Nigeria and other African countries, where women tend to access health services more regularly, partly due to their longstanding contact with maternal and reproductive health services (Ansa et al., 2025; Jalo et al., 2025). However, higher clinic attendance among women does not always mean better health outcomes. Financial dependence on male household heads, caregiving responsibilities, and limited ability to make independent decisions about their own healthcare can still prevent women from following through on treatment (Jalo et al., 2025). What this study shows for Niger State is that men with hypertension are presenting to the hospital at later stages of the disease, and this calls for specific outreach efforts that go beyond formal clinic settings to reach men where they are — in their workplaces, markets, and communities.

Age as a Determinant of Health-seeking Behaviour

The largest age group among respondents was those aged 31 to 59 years, who made up 47.5% of the sample, followed by those aged 60 to 70 years at 36.3%, and those aged 70 and above at 16.2%. The fact that most respondents were middle-aged or older is expected, given that blood pressure tends to rise with age due to arterial changes and prolonged exposure to risk factors (Franklin et al., 2017; Mills et al., 2020). The regression results confirmed that age was a significant predictor of hypertension, which is consistent with findings from similar studies in Nigeria (Adeloye et al., 2015; Ibrahim & Damasceno, 2012).

What is more concerning is the small number of younger adults, particularly those between 20 and 30 years, who came forward for hypertension care. This gap suggests that younger people in Niger State do not consider themselves at risk of hypertension and therefore do not seek screening or treatment. This aligns with the HBM concept of perceived susceptibility: if a person does not believe they are at risk of a disease, they are unlikely to take steps to check or treat it. Studies have also shown that even among older patients who already know they have hypertension, many still fail to attend clinic appointments consistently (Oche et al., 2024). This means that awareness alone is not enough to sustain health-seeking behaviour, and that more active follow-up systems are needed to keep patients engaged in their care.

Educational Attainment as a Determinant of Health-seeking Behaviour

Among the respondents, 32.1% completed secondary school, 25.6% had tertiary education, 22.2% had no formal education, and 20.1% had only primary school education. The regression analysis showed that higher education was associated with higher odds of being hypertensive, with more educated respondents about twice as likely to have hypertension. At first, this may seem surprising, but it reflects a well-known pattern in developing countries where people with higher education tend to have desk jobs, eat more processed foods, and be less physically active — all of which increase the risk of high blood pressure (Adeloye et al., 2015; Akinlua et al., 2015).

At the same time, the large proportion of respondents with no formal education is a cause for concern. People with little or no education may not understand what causes hypertension, may not recognise its symptoms, and may find it difficult to follow medical instructions when they do visit a hospital. Research in similar Nigerian settings has shown that some of these patients attribute hypertension to spiritual causes or believe that traditional medicine is more appropriate for treating it (Ndukwe et al., 2023; Cutler & Lleras-Muney, 2024). This keeps many of them away from formal healthcare. The key message from this finding is that education influences hypertension in two different ways: it raises the risk of developing the condition through lifestyle changes, but it also gives people the tools to understand and manage it. Health programmes must therefore be designed to serve both groups — those who are educated and at risk, and those without education who may lack the knowledge to seek proper care.

Marital Status as a Determinant of Health-seeking Behaviour

Married respondents made up 60.3% of the study sample, while single respondents — including the never-married, divorced, and widowed — accounted for 39.1%. The higher representation of married adults in the clinic reflects the role spouses play in encouraging each other to seek medical attention, sharing the financial burden of treatment, and providing

general support in managing a chronic illness (Umberson & Karas Montez, 2024; Okpechi et al., 2023). This appears to hold in the Niger State context as well.

Despite this, the regression analysis did not find marital status to be a statistically significant predictor of hypertension. This suggests that marriage alone does not determine whether someone develops hypertension — other factors like income and sex likely play a stronger role. Still, 39.1% who were not married deserve attention. Those who are widowed may face added challenges: they may have lost a source of financial support, they may be living alone, and they may be managing their health condition without anyone to remind them to take their medication or attend a clinic. This group tends to be underrepresented in hypertension research, even though their situation makes them more vulnerable.

Religion as a Determinant of Health-seeking Behaviour

Christians made up 62.9% of the sample and Muslims 37.1%, which broadly reflects the religious makeup of Niger State. The regression results showed that religion was not a statistically significant predictor of the prevalence of hypertension. This does not mean that religion does not affect health-seeking behaviour. Both Christian and Muslim respondents in this study, and in the wider Nigerian literature, have been observed sometimes to interpret illness in spiritual terms and to seek prayer, herbal treatment, or religious intervention before going to the hospital (Kabiru et al., 2024). The fact that religion did not emerge as a significant predictor in the regression may mean that its influence on health-seeking behaviour operates indirectly, by shaping beliefs and attitudes, rather than directly causing hypertension.

The finding suggests that churches and mosques could be useful partners in delivering health education to hypertensive adults who might not otherwise receive it. Faith leaders in both traditions influence their congregations and can help to communicate health messages in ways that resonate culturally (Lindsey et al., 2025). Engaging them in hypertension awareness activities could help reach people who currently avoid formal healthcare for religious or cultural reasons.

Ethnicity as a Determinant of Health-seeking Behaviour

Nupe respondents were the most represented ethnic group at 48.0%, followed by the Yoruba at 28.5%, the Igbo at 13.3%, other minority groups at 6.0%, and the Hausa at 4.2%. The regression analysis showed that ethnicity was a significant predictor of hypertension, with some groups showing notably lower odds of being hypertensive than others. Similar ethnic differences in hypertension risk have been reported in other studies and are linked to genetic factors, traditional diets, and lifestyle patterns that differ across ethnic groups (Cooper et al., 2005; Addo et al., 2007).

In Niger State, these differences likely reflect the distinct food cultures, levels of physical activity, and health beliefs that exist across the Nupe, Gbagyi, Hausa, Yoruba, and Igbo communities. Each group has its own ways of understanding illness and its own attitude toward formal healthcare. A Nupe farmer and a Yoruba civil servant in Minna may both have hypertension, but the factors influencing when and whether they seek care could be quite different. This finding suggests that health programmes should not take a one-size-fits-all approach. Messages and outreach strategies should be adapted to suit the specific cultural context of each major ethnic group in the state.

Income and Occupation as Determinants of Health-seeking Behaviour

More than half of the respondents (57.4%) were low-income earners. Average income earners made up 28.2%, and high-income earners 14.4%. In terms of occupation, private-sector employees were the largest group at 39.9%, followed by traders and business owners at 32.6% and civil servants at 27.4%. Both income and occupation were highly significant predictors of hypertension in the regression analysis. Respondents with higher income were about four times more likely to be hypertensive. At the same time, those in jobs that left little room for routine health check-ups had significantly higher odds of developing the condition.

The link between higher income and hypertension can be explained by lifestyle changes that often come with increased earnings — sitting at a desk for most of the day, eating out more often, and exercising less (Marmot, 2005; Ataklte et al., 2015; Mills et al., 2020). On the other hand, people in lower-income jobs, especially traders and informal workers, tend not to attend clinics regularly because their earnings depend on them showing up to work every day. Missing a day to see a doctor means losing income for that day. This is what the PEH framework highlights: poverty and poor working conditions are structural problems that reduce people's ability to seek healthcare, regardless of whether they know they need it. In a setting where most people pay for healthcare out of their own pockets, and health insurance coverage is very limited, these economic barriers are not small inconveniences — they are major obstacles that prevent effective hypertension management.

Blood Pressure and BMI Findings

The study's blood pressure readings showed that 10.2% of respondents had optimal blood pressure at 120/80 mmHg, and 33.7% had normal blood pressure at 130/85 mmHg. However, 42.0% had slightly elevated blood pressure at 139/89 mmHg, and 14.1% had Grade 1 hypertension, with readings between 140/90 and 159/99 mmHg. In total, 56.1% of respondents had blood pressure readings that were at or above acceptable limits. This prevalence level is consistent with national data from Nigeria (Adeloye et al., 2015; Ataklte et al., 2015) and confirms that hypertension is a widespread problem in Niger State that is not being adequately managed at the community level.

The BMI data added another dimension to this picture. While 49.9% of respondents had a normal BMI, 27.4% were overweight, and 22.7% were underweight. Having both overweight and underweight respondents in the same study population reflects the dual nutrition problem seen in many communities across Nigeria, where some people eat too little, and others eat poorly nutritious processed foods that lead to weight gain. Being overweight is a known risk factor for high blood pressure, while being underweight can point to food insecurity and other health vulnerabilities. A healthcare provider interviewed during the qualitative phase of the study noted that most patients coming to the hospital with serious complications had hypertension that had gone unmanaged for a long time, often because they had not been coming for routine checks. This observation ties together all the findings of the study: hypertension in Niger State is common, it is often left unmanaged, and a combination of behavioural, economic, and structural factors is responsible for keeping people away from the care they need.

Conclusion

Hypertension is prevalent among adults in the study area and is associated with selected socio-demographic and socio-economic characteristics as well as health-seeking behaviour.

The findings highlight the need for improved preventive measures and increased awareness of hypertension and its management. Efforts should be directed toward promoting regular health check-ups and improving access to healthcare services to reduce the burden of hypertension in the study population.

Recommendations

Based on the findings of this study, the following recommendations are proposed:

1. Addressing Sex and Age Disparities in Hypertension Care

Since men showed higher odds of hypertension but were less likely to attend clinic proactively, and since younger adults were significantly underrepresented in clinic settings, health authorities in Niger State should develop outreach programmes that specifically target these two groups. Blood pressure screening should be brought to places where men and young people gather, such as workplaces, motor parks, markets, and tertiary institutions, so that the condition can be detected earlier, rather than waiting for people to come to the hospital.

2. Improving Health Literacy Among Low-Education Populations

Given that 22.2% of respondents had no formal education and that educational level significantly influenced health-seeking behaviour, health education programmes need to be designed for people who cannot read or write. Community health workers should carry hypertension awareness messages to communities in local languages, using simple formats that people can easily understand. These messages should directly address wrong beliefs about the causes of hypertension, particularly those that attribute it to spiritual attack or witchcraft, which discourage people from seeking hospital care.

3. Reducing Financial and Occupational Barriers to Healthcare Access

With 57.4% of respondents earning low incomes and occupation identified as a significant predictor of hypertension, the government needs to take practical steps to make healthcare more affordable and accessible. Health insurance coverage should be extended to include informal sector workers, traders, and subsistence farmers who are currently excluded. Antihypertensive drugs should be made available free of charge or at heavily subsidised prices at primary health centres. Clinic hours should also be extended to include evenings and weekends so that people who work during the day are not forced to choose between their income and their health.

4. Integrating Blood Pressure Monitoring with Nutritional Interventions

The finding that 56.1% of respondents had elevated blood pressure, combined with evidence of both overweight and underweight in the same population, shows that blood pressure management and nutrition cannot be addressed in isolation. Community health programmes should combine blood pressure checks with nutritional counselling and education about physical activity. Dietary advice should focus on locally available foods. It should be practically applicable to the daily lives of people in Niger State, rather than relying on general guidelines that may not reflect local food culture.

5. Strengthening Primary Healthcare for Early Detection and Follow-up

The qualitative evidence from healthcare providers showed that many hypertensive patients only come to the hospital in emergencies, by which time the condition has already caused serious damage. To change this pattern, primary health centres across Niger State need to be properly equipped and staffed to handle routine hypertension screening and monitoring. A register of diagnosed hypertensive patients should be established at each facility to enable systematic follow-up. Community health workers should be trained and deployed to visit homes, particularly those of older adults and low-income patients, to regularly check blood pressure and remind patients to attend their clinic appointments.

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